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10/530441
JCO Rec'd PCT/PTO 07 APR 2005

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Attn. Mr. Vigilante, M., Authorized Officer

Our Ref: A3232.WO202

Your ref:

Bologna, 23 September, 2004

Re: **International Patent Application No. PCT/IB03/04397 filed on 6 October, 2003 in the name of AZIONARIA COSTRUZIONI MACCHINE AUTOMATICHE A.C.M.A.**

Dear Sirs,

reference is made to the above identified Patent Application and to the Written Opinion dated June 24, 2004 (Form PCT/IPEA/408).

The following documents have been applied by the Examiner:

D1) US A 2 638 259
D2) US A 5 713 403
D3) GB A 2 035 973
D4) US B 6 334 473

The Examiner objected to claims 1, 2, 4 and 5 as lacking novelty over document D1 or D2 or D3 or D4; objected to claims 3, 6, 9-11 as lacking inventive step in view of document D2 over D1.

AMENDMENTS

The Examiner's objections and references cited have been carefully considered.

A new set of claims has been drafted in order to meet the requirements of Article 33(1) PCT.

Original claims 1 to 3, which were referred to a method of dispensing fluid, have been withdrawn.

Original independent claim 4, now claim 1, has been amended by appending original claims 6 and 7.

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Sede Legale:

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Consequently, original claims 6 and 7 have been cancelled.

Original claims 4 to 11 have been renumbered and, where necessary, amended in their dependencies.

Please note that no new matter has been added in amending original claims so complying with Article 34(2)(b) PCT.

In fact, amended claim 1 is fully supported by the technical features originally disclosed by claims 4, 6 and 7.

ARTICLE 33(2) PCT – NOVELTY

Independent claim 1 now recites: *"A machine for dispensing fluid substances into containers, comprising a tank (7), feed means (49) for supplying fluid substances to the tank (7), and a plurality of filler valves (8) positioned beneath the tank (7) such as can be associated singly with the containers, the tank (7) comprising a plurality of different compartments (12, 13, 14, 15) isolated one from another and connecting each with at least one of the filler valves (8) and being rotatable about a respective axis (A) of rotation, the feed means (49) comprising a valve assembly (19) by which fluid substances are directed selectively to the different compartments of the tank (7); the machine being characterised in that the valve assembly (19) comprises a fixed portion (20) presenting a plurality of inlet ports (22) admitting fluid substances received from respective sources (23, 24, 25, 26), and a moving portion (21), rotatable as one with the tank (7) about the relative axis (A), presenting a plurality of outlet ports (28) from which the fluid substances are directed to the respective compartments of the tank (7)."*

Document D1 shows (the references in parenthesis applying to D1): a machine for dispensing fluid substances into containers, comprising a tank (17), feed means (16) for supplying fluid substances to the tank (17), and a plurality of filler valves (21) positioned beneath the tank (17) such as can be associated singly with the containers, the tank (17) comprising a plurality of different compartments (25a, 25b, 25c, 25d) isolated one from another and connecting each with at least one of the filler valves (21) and being rotatable about a respective axis of rotation, the feed means (16) comprising a valve assembly (29a, 29b, 29c, 29d) by which fluid substances are directed selectively to the different compartments of the tank (17).

Document D1 does not show that the valve assembly comprises a fixed portion presenting a plurality of inlet ports admitting fluid substances received from respective sources and a moving portion, rotatable as one with the tank about the relative axis, presenting a plurality of outlet ports from which the fluid substances are directed to the respective compartments of the tank.

By contrast, D1 discloses a valve presenting a plurality of fixed valves which discharge the fluid substances into the below compartments of the tank.

Document D2 shows (the references in parenthesis applying to D2): a machine for dispensing fluid substances into containers, comprising a tank (17, 18), feed means (21, 22) for supplying fluid substances to the tank (17, 18), and a plurality of filler valves (14) positioned beneath the tank (17, 18) such as can be associated singly with

the containers, the tank (17, 18) comprising a plurality of different compartments (17, 18) isolated one from another and connecting each with at least one of the filler valves (14) and being rotatable about a respective axis of rotation, the feed means (21) comprising a valve assembly (means of rotary coupling) by which fluid substances are directed selectively to the different compartments of the tank (17, 18). Document D2 does not show that the valve assembly comprises a fixed portion presenting a plurality of inlet ports admitting fluid substances received from respective sources and a moving portion, rotatable as one with the tank about the relative axis, presenting a plurality of outlet ports from which the fluid substances are directed to the respective compartments of the tank. By contrast, D2 only shows that the valve assembly are "means of rotary coupling" for connecting each tank with external reservoir.

Document D3 shows (the references in parenthesis applying to D3): a machine for dispensing fluid substances into containers, comprising a tank (2), feed means (37, 38, 39, 40) for supplying fluid substances to the tank (2), and a plurality of filler valves (6) associated singly with the containers, the tank (2) comprising a plurality of different compartments (2₁, 2₂, 2₃, 2₄, 2₅, 2₆) isolated one from another and connecting each with at least one of the filler valves (6).

Document D3 does not show that the tank is rotatable about a respective axis of rotation, that the feed means comprises a valve assembly by which fluid substances are directed selectively to the different compartments of the tank and that the valve assembly comprises a fixed portion presenting a plurality of inlet ports admitting fluid substances received from respective sources and a moving portion, rotatable as one with the tank about the relative axis, presenting a plurality of outlet ports from which the fluid substances are directed to the respective compartments of the tank. By contrast, D3 shows that the tank is fixed and that the feed means consists only of fixed conduits which supply the tank.

Document D4 shows (the references in parenthesis applying to D4): a machine for dispensing fluid substances into containers, comprising a tank (2), feed means (24) for supplying fluid substances to the tank (2), and a plurality of filler valves (4) positioned beneath the tank (2) such as can be associated singly with the containers, the tank (2) comprising a plurality of different compartments isolated one from another and connecting each with at least one of the filler valves (4) and being rotatable about a respective axis of rotation.

Document D4 does not show that the feed means comprises a valve assembly by which fluid substances are directed selectively to the different compartments of the tank and that the valve assembly comprises a fixed portion presenting a plurality of inlet ports admitting fluid substances received from respective sources and a moving portion, rotatable as one with the tank about the relative axis, presenting a plurality of outlet ports from which the fluid substances are directed to the respective compartments of the tank.

By contrast, D4 shows that the feed means are only pipes each of which has an end connected to a supply of filling substance, the pipes facing respective ones of the compartments of the tank.

Therefore the subject matter of amended claim 1 is clearly new over the prior art.

ARTICLE 33(3) PCT – INVENTIVE STEP

D1 is the document that performs substantially the same function and has much features in common with present claim 1 so it is considered the closest prior art. Amended claim 1 faces the objective technical problem of supplying fluid substances to each rotating compartment of the tank.

Indeed, the plurality of inlet ports of the valve assembly fixed portion can be connected with respective supplies of fluid and the fluid substances can be discharged into the rotating tank through the plurality of outlet ports which rotates solidly with the tank.

Document D1 solves the cited technical problem with different technical features. Indeed, D1 discloses a rotating tank which presents an upper chamber subdivided by concentric portions into annular chambers and a lower chamber provided with partitions. Each annular chamber is supplied by a dedicated pipe. Finally, each annular chamber communicates with one of the lower segmental compartments through a corresponding opening in the horizontal partition.

Therefore, the stated technical problem is solved with different technical features. Moreover, present claim 1 solution achieves an important advantage with respect document D1 solution. Indeed, present machine demands little time for its cleaning than D1 machine, since D1 machine presents two superposed tanks while present machine presents only one tank.

Document D2 solves the cited technical problem with different technical features too.

In fact, D2 discloses two toroidal vessels (two compartments of the tank) which are components of the revolving filling machine. Each toroidal vessel is connected by means of a rotary coupling and by means of an external connecting line to an external reservoir, to supply the respective product.

Please note that D2 does not describe in detail the “means of rotary coupling”.

Thus, at least, D2 solves the cited technical problem with different technical features. Moreover, present claim 1 solution achieves an important advantage with respect document D2 solution. Indeed, since D2 requires toroidal vessel, D2 machine presents greater overall dimensions than present machine.

Document D3 is unsuitable for solving the cited technical problem, since it discloses a fixed tank.

Document D4 solves the cited problem by providing a tank presenting a plurality of concentric annular chambers. Each chamber is associated with a corresponding feeding pipe.

Therefore, document D4 solves the cited technical problem with different technical features too.

Since the solution claimed by amended claim 1 to the stated objective technical problem is not shown nor suggested by any of the prior art references, it is felt that new claim 1 involves an inventive step over the prior art.

Please note that the Examiner did not objected to original claim 7, currently appended to claim 1, neither as lacking novelty nor as lacking inventive steep.

Since claims 2-6 depend now upon new and inventive claim 1, claims 2-6 are felt to be patentable too.

In view of the above amendments and remarks, reconsideration of the application is respectfully requested.

Yours faithfully,

LANZONI Luciano
c/o BUGNION S.p.A.

Enclosures:

- replacement sheets (Rule 66.8 PCT): pages 13 and 14;
- Working copy of amended pages: 13 to 16 and 14bis.

Claims

1) A machine for dispensing fluid substances into containers, comprising a tank (7), feed means (49) for supplying fluid substances to the tank (7), and a plurality of filler valves (8) positioned beneath the tank (7) such as can be associated singly with the containers, the tank (7) comprising a plurality of different compartments (12, 13, 14, 15) isolated one from another and connecting each with at least one of the filler valves (8) and being rotatable about a respective axis (A) of rotation, the feed means (49) comprising a valve assembly (19) by which fluid substances are directed selectively to the different compartments of the tank (7); the machine being characterised in that the valve assembly (19) comprises a fixed portion (20) presenting a plurality of inlet ports (22) admitting fluid substances received from respective sources (23, 24, 25, 26), and a moving portion (21), rotatable as one with the tank (7) about the relative axis (A), presenting a plurality of outlet ports (28) from which the fluid substances are directed to the respective compartments of the tank (7).

2) A machine as in claim 1, wherein the tank (7) is of substantially circular appearance and comprises a plurality of radial baffles (16) by which the selfsame tank (7) is divided into a corresponding plurality of internal compartments (12, 13, 14, 15).

3) A machine as in claim 1, wherein the inlet ports (22) are positioned on the fixed portion (20) of the valve assembly (19) at different heights relative to the axis (A) of rotation, and the outlet ports (28) are connected to the rotating portion (21) occupying positions spaced apart angularly about the selfsame axis (A).

4) A machine as in claims 1 to 3, comprising a container labelling station (42) at which different labels are applied to the containers according to the particular fluid substance dispensed from the tank (7) into each one of the selfsame containers.

5) A machine as in claim 4, wherein the labelling station (42) comprises a plurality of labelling units (43, 44, 45, 46), corresponding in number at least to the number of the compartments (12, 13, 14, 15).

6) A machine as in claims 1 to 3, comprising a container closing station at which different closures are applied to the containers according to the particular fluid substance dispensed from the tank (7) into each one of the selfsame containers.

Claims

~~1) A method of dispensing fluid substances into containers, characterized in that it comprises the steps of directing a plurality of different fluid substances into a tank (7) affording respective~~
5 ~~different compartments (12, 13, 14, 15) isolated one from another and equipped each with at least one filler valve (8); replenishing the compartments (12, 13, 14, 15) of the tank (7) at least in part; and dispensing a quantity of the fluid substance from a~~
10 ~~selected compartment (12, 13, 14, 15) of the tank (7) into a selected container by way of the at least one filler valve (8).~~

~~2) A method as in claim 1, comprising the steps of directing containers filled with the fluid substance to a station (42) at which the selfsame containers~~
15 ~~are labelled, and applying different labels to the containers according to the particular fluid substance dispensed into each one.~~

~~3) A method as in claim 1, comprising the steps of directing containers filled with the fluid substance to a station at which the selfsame containers are~~
20 ~~closed, and applying different closures to the containers according to the particular fluid substance dispensed into each one.~~

~~4) A machine for dispensing fluid substances into~~
~~containers, comprising a tank (7), feed means (49) by~~
~~which to supply fluid substances to the tank (7), and~~
~~a plurality of filler valves (8) positioned beneath~~
5 ~~the tank (7) such as can be associated singly with~~
~~the containers, characterized in that the tank (7)~~
~~comprises a plurality of different compartments (12,~~
~~13, 14, 15) isolated one from another and connecting~~
~~each with at least one of the filler valves (8) and~~
10 ~~in that the compartments (12, 13, 14, 15) are~~
~~replenishable with respective different fluid~~
~~substances. <insert page 14bis>~~

15 2) A machine as in claim 4 1, wherein the tank (7)
is of substantially circular appearance and comprises
a plurality of radial baffles (16) by which the
selfsame tank (7) is divided into a corresponding
plurality of internal compartments (12, 13, 14, 15).

(6) ~~A machine as in claim 4 or claim 5, wherein the~~
20 ~~tank (7) is rotatable about a respective axis (A) of~~
~~rotation, and the feed means (49) comprise a valve~~
~~assembly (19) by which fluid substances are directed~~
~~selectively to the different compartments (12, 13,~~
~~14, 15) of the tank (7).~~

25 7) ~~A machine as in claim 6, wherein the valve~~
~~assembly (19) comprises a fixed portion (20)~~
~~presenting a plurality of inlet ports (22) admitting~~
~~fluid substances received from respective sources~~

1) A machine for dispensing fluid substances into containers, comprising a tank (7), feed means (49) for supplying fluid substances to the tank (7), and a plurality of filler valves (8) positioned beneath the tank (7) such as can be associated singly with the containers, the tank (7) comprising a plurality of different compartments (12, 13, 14, 15) isolated one from another and connecting each with at least one of the filler valves (8) and being rotatable about a respective axis (A) of rotation, the feed means (49) comprising a valve assembly (19) by which fluid substances are directed selectively to the different compartments of the tank (7); the machine being characterised in that the valve assembly (19) comprises a fixed portion (20) presenting a plurality of inlet ports (22) admitting fluid substances received from respective sources (23, 24, 25, 26), and a moving portion (21), rotatable as one with the tank (7) about the relative axis (A), presenting a plurality of outlet ports (28) from which the fluid substances are directed to the respective compartments of the tank (7).

~~(23, 24, 25, 26), and a moving portion (21),~~
~~rotatable as one with the tank (7) about the relative~~
~~axis (A), presenting a plurality of outlet ports (28)~~
~~from which the fluid substances are directed to the~~
 5 ~~respective compartments (12, 13, 14, 15) of the tank~~
~~(7).~~

¶ 3) A machine as in claim 7 1, wherein the inlet
 ports (22) are positioned on the fixed portion (20)
 of the valve assembly (19) at different heights
 10 relative to the axis (A) of rotation, and the outlet
 ports (28) are connected to the rotating portion (21)
 occupying positions spaced apart angularly about the
 selfsame axis (A).

¶ 4) A machine as in claims 4 1 to ¶ 3, comprising a
 15 container labelling station (42) at which different
 labels are applied to the containers according to the
 particular fluid substance dispensed from the tank
 (7) into each one of the selfsame containers.

~~10~~ 5) A machine as in claim ¶ 4, wherein the
 20 labelling station (42) comprises a plurality of
 labelling units (43, 44, 45, 46), corresponding in
 number at least to the number of the compartments
 (12, 13, 14, 15).

~~11~~ 6) A machine as in claims 4 1 to ¶ 3, comprising a
 25 container closing station at which different closures
 are applied to the containers according to the

particular fluid substance dispensed from the tank
(7) into each one of the selfsame containers.

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